

# American International University- Bangladesh

# Software Requirement Specifications

Project Title: Tel Lagbe (A Fuel Delivery System)

Section: E

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**Project Title: Tel Lagbe (Fuel Delivery System)** 

# 1. Introduction

# 1.1 Purpose

This purpose of this document is to provide a comprehensive overview of an online based fuel service system. The document describes the system's characteristics and operations, its intended purpose and constraints, and the external environmental aspects that the system must solve. The document serves as a guide for both investors and developers, providing them with a comprehensive knowledge of the system and its features so that they may make rational choices.

The proposed system aims to provide affordable, high-quality fuel to customers all around the country. Using this system, customers can easily order fuel anytime, anywhere, with just few clicks. Unregistered customers can place small orders, while registered customers can order large quantities of fuel and receive additional benefits. Registered customers will be provided with an IoT-based device that can monitor fuel levels, notify the company before the fuel runs out, and ensure that machinery is refueled within 24 hours. The device can also check the quality of the fuel being provided, making sure it meets industry standards. Online payment options are available for registered customers, whereas unregistered customers can pay cash on delivery. Customers can conveniently track their orders without having to visit gas stations.

# 1.2 Document Conventions

The document is written in a clear and concise manner, utilizing specific formatting to delineate key concepts. Bolded headings are used to identify relevant topics, while the normal text is utilized to outline the necessary hardware and software requirements for running the emergency fuel system service. This report serves as a valuable resource for stakeholders, providing an opportunity for engagement and high-level insight into project concepts. The document serves as a means for stakeholders to better comprehend the project and its intended purpose. Its purpose is to offer interested parties easy-to-understand and accessible system information throughout the development of the fuel service system.

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Abbreviation	Full Form	
SRS	Software Requirement Document	
IoT	Internet of Things	
UI	User Interface	
UX	User Experience	
UML	Unified Modeling Language	

# 1.3 Intended Audience and Reading Suggestions

The target audience for this document is Project Managers, Domain Experts, Developers, and Requirements Engineers. It is highly recommended that the reader should understand the basic

concept of Tel Lagbe (Fuel Delivery System) before reading this document. Audiences for this document are:

- Developers
- Project Managers
- Business Analyst
- Marketing Staff
- Users (e.g. admin, fuel consultant, customer representative, etc.)
- Testers
- Documentation Writers

As per the document is intended for project managers, Business Analyst, developers, testers, marketing staff, users, and documentation authors, the document is divided into four parts-

- Introduction
- Overall Description
- System Features
- Design & Interface Requirements

### 1.4 References

- Emergency Fuel Delivery in Dubai (CAFU)- <a href="https://www.cafu.com/emergency-fuel-service">https://www.cafu.com/emergency-fuel-service</a>
- Fuel Logic https://www.fuellogic.net/order-fuel/

# 2. Overall Description

# 2.1 Product Perspective

Tel Lagbe is a cost-effective and comprehensive fuel delivery system that operates independently and can be used anytime, anywhere. It ensures that customers' fuel needs are met, regardless of time or location, without replacing any existing initiative. The system integrates web browser features through the IoT and configures vehicles, while a fleet management system monitors fuel delivery vehicles and optimizes delivery routes. Partnerships with car rental agencies and logistics companies are established to expand the customer base and increase revenue.

### 2.2 Product Functions

The number of different identified user classes is 4 for this product. They are-

- 1. Admin
- 2. Manager
- 3. Deliveryman
- 4. Customer (Unregistered & Registered)

According to the user classes, user privileges are different. Product are listed below along with user classes:

Admin:

- Administratively manage the system
- Manipulate any order
- Override the system
- Manage users
- Generate vouchers
- Manage managers
- Manage deliverymen
- Manipulate the IoT devices

### Manager:

- Manage the system
- Manipulate order
- Manage users and deliverymen

### Deliveryman:

- View order details
- View customer details (specific)
- View live location
- Deliver order

# Customer (Unregistered):

- Order fuel
- Register
- Get invoice

### Customer (Registered):

- Login
- View Dashboard
- Place an order
- Manage assets
- Order History
- Edit profile
- Get invoice

# 2.3 User Classes and Characteristics

In this system, fuel is delivered on time to customers in need with the best quality fuel. The system has three internal hierarchy users. There are admin, manager, and deliveryman. The admin is at the top of the list. The admin has full control over the system. Next, the manager can manage orders, fuel, and deliverymen in the system. Lastly, deliverymen can view live locations, orders, and customer details. On the other hand, both unregistered and registered customers can use the system. Unregistered customers can order fuel by providing some personal information. After placing order, they will get an OTP code to receive the order. Meanwhile, registered customers can use the system's services. Registered customers can be domestic or industrial. In addition, registered customers can also use subscription-based services from the system. As shown in the following table, the characteristics of system users are as follows:

User Classes	Characteristics		
Admin	The admin has the ultimate authoritative access over the entire system. He can manipulate any running & previous order. He can override the system if needed. Additionally, he can manage users and other employees. The admin has the authority to generate vouchers and can manipulate the IoT device.		
Manager	Manager is expected to manage the system, after the admin. He can manage the system, but will have less access than the admin. He can only manipulate the in-progress order. Manager can manage the users and deliveryman.		
Deliveryman	Deliveryman is the one who will deliver the order at the customer end. He can view any inprogress order details. Also, can check some of the customer details and live location.		
Customer (Unregistered)	The role unregistered customer is there to minimize the order time as much as possible to attract the new customers. The unregistered customer can order fuel without any need of registration just by providing few details. He can order fuel, register an account, get invoice.		
Customer (Registered)	Register customer is the one who can avail all the available features. He can login with valid credentials and view the dashboard. From the dashboard the user can view the usage report of the last 7 days. Also, the pending deliveries. A call-to-action button is also there to order fuel instantly. The registered customer can view the number of total assets, amount of total used fuel, and total cost, total orders (till date). Placing an organized order can be done by him and can get an invoice to the order. He can manage assets, edit existing asset details. He can view order history till date. If needed, the registered customer can edit his profile info.		

# **2.4 Operating Environment**

TelLagbe (www.tellagbe.com.bd) is a web-based application and shall operate in all widely-used browsers. The minimum requirements (from a client's perspective) to keep in consideration-

- The application will serve optimal performance if it is used from a desktop or laptop.
- The browser should be able to run JS frameworks along with basic HTML & other stacks.
- Minimum RAM of 1GB.
- The in-use device should have GPS for navigation & live location.
- Stable internet connectivity is required.
- As the application is web based, the operating system is regardless here.

## How the system will function-

- The main domain (www.tellagbe.com.bd) will be hosted on a third-party hosting service (such as AWS). But the environment will be private.
- A CDN (Content Delivery Network) will be used to minimize the latency between the user's location and the server location which decreases the overall page load time. In addition to an extra layer of security against different kinds of attacks and an overall website caching for increasing website delivery speed.
- The scripts will be hosted on a server-less computing network known as (Google Cloud Functions), this step ensures super-fast execution of these scripts without a single point of failure and minimizes operation cost substantially.

# 2.5 Design and Implementation Constraints

- **Brand Guidelines:** One of the non-negotiables for a successful business website is establishing and adhering to brand rules. As a result, the website's theme, fonts & other elements match the color of the logo. Besides, to avoid any form of discrepancy, the fonts chosen are kept as simple as possible.
- Budget: The expected cost of designing, planning, prototyping, and developing the project exceeds the budgeted amount. As a result, in order to accomplish better planning and development, the cost of designing and prototyping must be decreased. To make the most of the budget, the designing and prototyping, as well as the development of some of the modules, might be outsourced. Third-party APIs can also be leveraged to cut development costs.
- **Browser:** Each browser has its own compiler, and various codes are interpreted differently, and some do not support the same versions of Markup Languages, Style Sheets, or JavaScript. As a result, the appearance may alter depending on the browser used to view it. The website will be designed and tested with Google Chrome, Mozilla Firefox, Safari, Microsoft Edge, and Brave Browser, so that it will be compatible with the majority of popular browsers.
- Project Timeline: The present timeframe has been established following the agile method. The entire project has been separated into modules for planning and development teams, as well as submodules for team members. Each module will be planned, developed, and reviewed. Although the deadline may be missed, quality must take precedence over delivery.
- Regulatory Policies: As this is a fuel delivery service, the guidelines & laws imposed by the Energy & Mineral Resources Division of Govt. of Bangladesh must be followed in the designing and development procedure(s). Some of the notable points are-
  - The maximum capacity of the delivery vehicle cannot be more than 500L.

- An individual user cannot order more than 100L of any type of fuel in 24 hours (including all assets).
- An individual domestic user cannot order more than 100L of any type of fuel in 24 hours (including all assets); but for industrial user, the limit is 250L.
- An individual domestic user cannot order more than 1000L of any type of fuel in 30 days (including all assets); but for industrial user, the limit is 5000L.
- All the delivery vehicles must be tested & certified by the **Department of Explosive** authority.
- Modern IoT based firefighting systems should be installed in all the vehicles & must be tested by the **Fire Department**.

### **Timing Regulation:**

- The order delivery should not be delayed more than 6 hours than the allocated time slot.
- The system should be online and functional 24x7.
- The IoT device installed in the fuel tanker should check & update the fuel quantity in every 15 minutes and the quality in every 7 days.

#### Other:

- The customer will be responsible for maintaining the IoT device installed in the fuel tanker.
- The primary language of the system will be English, but user should be able to toggle to Bengali and vice versa.
- Customer data must be encrypted and no one in the system should be able to oversee anything that is not expected to be seen.

### 2.6 User Documentation

## The following User documentation will be provided:

#### a. Installation Guideline:

This covers details about how to install, set up, and use our system. It comprises step-by-step instructions that guide customers through the process installation and setup process.

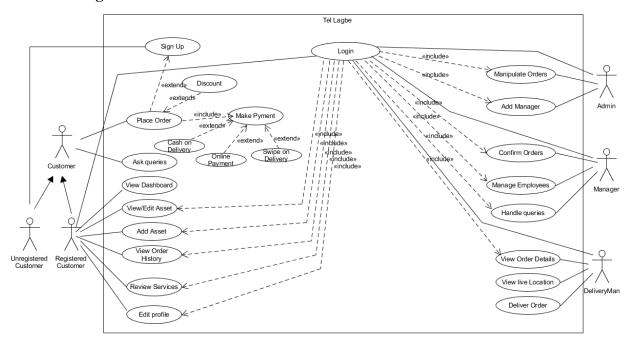
# b. System Manual:

If someone wants documentation that demonstrates every step regarding how to use and make the most of the offerings, the system manual is the right choice. It comprises examples, video tutorials, and how-to articles that explain how our system works. Registered customers can also get guidelines regarding IoT device configuration.

## c. Introductory Document:

This document gives an overview of what our system is about, what are its functions, use cases, and what customers can expect from it. It's like a short, and quick guide to acquaint customers with the system.

# **Use Case Diagram:**



### 3.0 Justification:

The Tel Lagbe Fuel Delivery System offers several benefits, including:

### **Convenience:**

The introduction of an online-based Fuel Delivery System brings unparalleled convenience to customers. With just a few clicks, users can place fuel orders at any time and from anywhere. This convenience eliminates the need for customers to physically visit gas stations, providing a time-saving and hassle-free experience. This feature is particularly beneficial in today's fast-paced world, where efficiency and accessibility are paramount.

### **Efficiency:**

The system's efficiency is evident in the benefits offered to registered customers. Through the integration of IoT technology, these customers experience a seamless and proactive fueling process. The IoT-based monitoring system not only tracks fuel levels but also triggers automatic refueling, ensuring that machinery is consistently fueled within a 24-hour timeframe. This efficiency not only optimizes operations for customers but also contributes to the overall productivity of the industries relying on timely fuel replenishment.

### **Transparency:**

Transparency is a cornerstone of the Fuel Delivery System, enhancing the user experience. The platform enables users to track their orders in real-time, providing visibility into the entire delivery process. Additionally, customers can easily access their order history, fostering a sense of control and awareness. This transparency not only builds trust between the service provider and the customers but also empowers users with valuable information, promoting informed decision-making.

## Safety:

The inclusion of an IoT device in the system extends beyond mere monitoring; it ensures the safety and quality of the delivered fuel. By actively checking and confirming that the fuel meets industry standards, the IoT device mitigates potential risks associated with subpar fuel quality. This commitment to safety is not only crucial for the longevity of machinery and equipment but also safeguards against environmental and operational hazards, establishing the Fuel Delivery System as a reliable and responsible solution in the market.

# 4.0 Stakeholder Analysis:

The Stakeholder Analysis identifies key individuals or groups invested in the success of the Fuel Delivery System. Each stakeholder plays a distinct role in contributing to the project's objectives. The identified stakeholders and their justifications are outlined below:

#### **4.1 Admin:**

Role: Manages the overall project, makes strategic decisions.

#### **Justification:**

The admin is the driving force behind the project, responsible for overseeing its entirety. Their strategic decisions shape the system's direction, ensuring alignment with organizational goals. The Admin's involvement is critical for establishing the project's vision, setting priorities, and managing resources effectively. Their decision-making authority is pivotal in addressing challenges and steering the project toward success.

#### 4.2 Customer:

**Role:** Uses the system to order fuel, manage assets, and track deliveries.

#### **Justification:**

Customers are the end-users and beneficiaries of the Fuel Delivery System. Their satisfaction and user experience directly impact the system's success. By using the system to order fuel, manage assets, and track deliveries, customers leverage the platform's features for their convenience. Understanding customer needs and preferences is crucial for refining the system to meet user expectations, ensuring widespread adoption and positive feedback.

### 4.3 Freelancer:

**Role**: Develops and maintains the codebase, ensures user-friendliness.

#### **Justification:**

Freelancers are integral to the technical development and sustainability of the Fuel Delivery System. Their role in coding and maintaining the system directly influences its functionality and efficiency. The user-friendliness of the interface, a key aspect of the system's success, relies on the skills and dedication of freelancers. Their ongoing commitment to refining and optimizing the codebase ensures a robust and responsive system that meets the evolving needs of both administrators and customers.

In summary, each stakeholder identified in the analysis holds a unique and crucial role in the success of the Fuel Delivery System. Their contributions collectively drive the project forward, ensuring its viability, user satisfaction, and long-term sustainability.

# **5.0 Product Vision and Scope:**

The product vision serves as a guiding beacon, outlining the overarching goal and the intended impact of the Fuel Delivery System. The vision, along with the defined scope, sets the foundation for the system's development and functionality.

#### **5.1 Product Vision:**

#### **Vision Statement:**

To create a user-friendly platform that revolutionizes the fuel delivery experience.

#### **Justification:**

The product vision encapsulates the essence of the Fuel Delivery System – a transformative solution that aims to redefine the way customers interact with and receive fuel. By emphasizing user-friendliness, the vision envisions a seamless and enjoyable experience for customers, making fuel ordering and delivery a hassle-free process. This vision aligns with the broader objective of enhancing customer satisfaction and setting new standards in the fuel service industry.

### **5.2 Scope:**

#### **Scope Statement:**

The scope includes order management, asset tracking, and transparent communication with customers.

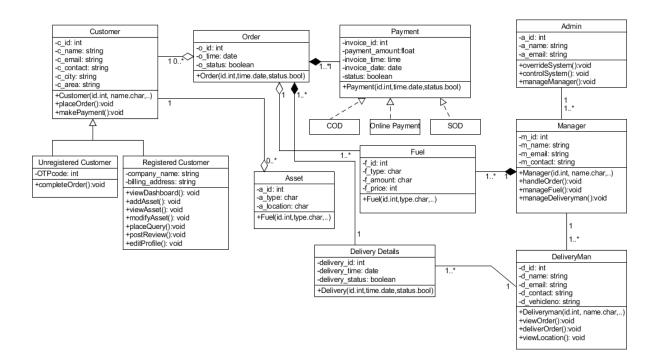
### **Justification:**

The defined scope outlines the specific functionalities and features that the Fuel Delivery System will encompass. Order management ensures a streamlined process for customers to request and receive fuel efficiently. Asset tracking provides a comprehensive solution for customers to manage and monitor their fuel-related assets seamlessly. Transparent communication establishes a foundation of trust between the system and customers, allowing them to stay informed about their orders. This scope reflects a commitment to holistic customer service and operational excellence.

In conclusion, the product vision and scope collectively articulate the aspirations and boundaries of the Fuel Delivery System. The vision sets the tone for a user-centric and transformative experience, while the scope delineates the key features that will bring this vision to fruition. Together, they guide the development team towards creating a product that not only meets but exceeds user expectations.

### **6.0 Classes for the System:**

# Class Diagram



# 7.0 Components/Modules of the System:

#### 7.1 User Management Module:

**User Registration:** Streamlines the onboarding process, allowing users to create accounts effortlessly. **Login Functionality**: Provides a secure login mechanism, ensuring authenticated access to the system. **Profile Editing:** Enables users to update and modify their profile information, ensuring accurate and upto-date user details.

**User-Friendly Interface:** Incorporates an intuitive interface for a seamless and positive user experience.

# 7.2 Order Processing Module:

**Order Placement**: Facilitates users in placing fuel orders with a straightforward and efficient process. **Payment Processing:** Manages various payment methods, including online payment, cash on delivery, and swipe on delivery.

**Order History:** Maintains a comprehensive record of past orders, allowing users to track and review their transaction history.

**Confirmation Notifications:** Sends instant notifications to users upon successful order placement, ensuring transparency and confidence.

### 7.3 Asset Management Module:

Add New Assets: Allows registered customers to effortlessly add new assets to their profile.

**View Existing Assets**: Provides a detailed list of all registered assets for easy monitoring.

**Update Asset Information:** Enables users to modify and enhance asset details, ensuring accuracy in fuel usage reporting.

**User Control:** Enhances user control over their assets, fostering a personalized and efficient system experience.

# 7.4 Delivery Tracking Module:

**Real-Time Tracking:** Utilizes GPS technology to offer live updates on the location and status of ongoing fuel deliveries.

**Enhanced Transparency**: Provides customers with a dynamic view of their orders, fostering trust and confidence.

**Optimized User Experience**: Ensures users have a clear understanding of delivery timelines, contributing to an overall positive experience.

GPS Integration: Seamlessly integrates GPS functionality for accurate and reliable delivery tracking.

User Management Module: Handles user registration, login, and profile editing.

**Order Processing Module:** Manages fuel orders, payment processing, and order history. **Asset Management Module:** Allows customers to add, view, and update their assets.

**Delivery Tracking Module:** Provides real-time tracking of fuel deliveries.

# **8.0 Functional Requirements:**

Req ID	Date	Req Description	Dependencies	Originator	Testing Criteria
HR1	2023-11-05	Enable Unregistered Customers to Place Fuel Orders	User Management Module	User	Unregistered customers can successfully place fuel orders.
HR1.1	2023-11-12	Implement OTP Verification for Order Completion	Order Processing Module	Admin	Customers receive OTP for order completion.
HR1.2	2023-11-19	Provide Option for Online Payment	Order Processing Module	User	System processes online payments securely.
HR1.3	2023-11-26	Allow Registered Customers to View Order History	Order Processing Module	User	Registered customers can access their order history.
HR1.4	2023-11-31	Integrate GPS for Real- Time Delivery Tracking	Delivery Tracking Module	Admin	Customers can track the live location of their deliveries.

# **9.0 Non-Functional Requirements:**

**QA1 - Usability:** A user with a proper internet connection should be able to navigate to each interface of the system within 5 to 10 seconds. All the buttons and links should respond to user input within 2 to 6 seconds. A user with little education or no education shall be able to place an order for fuel within 3 minutes. While in the case of a trained user, the time may reduce to 1 minute. The user should get an OTP within 30 seconds after placing an order.

**Priority Level:** High **Precondition:** None

Cross-reference: QA4, QA5

**QA2 - Interoperability:** The users will get an option for paying the bill for fuel. So, the system should couple with available payment gateways within 1 minute.

**Priority Level:** High **Precondition:** None **Cross-reference:** QA5

QA3 - Maintainability: A maintenance programmer shall be able to fix any system problem

within 2 labor hours or less.

**Priority Level:** High **Precondition:** None

Cross-reference: QA4, QA5

**QA4** – **Reliability:** The system should be available and responsive 98% of the time so that users can interact with it anytime and it should perform all the functionalities and transactions accurately and consistently without any kind of defects.

**Priority Level:** High **Precondition:** None

Cross-reference: QA1, QA3, QA5

**QA5 - Efficiency:** The system should be able to handle user requests asynchronously so that the users can continue other tasks without only waiting for the requested response. The system should generate the requested response within 3 to 5 seconds without any unnecessary delay or system lag.

Priority Level: Medium Precondition: None

Cross-reference: QA1, QA2, QA3, QA4

# 10. 0 System's Requirements:

# **10.1System Features**

# 1. Order Without Registration

# **Functional Requirements**

- 1.1. Unregistered customers can order fuel within 30 seconds by providing some basic information (name, location, phone no., type of the asset, fuel type, and fuel quantity).
- 1.2. A representative will contact the customer immediately after the order has been placed.
- 1.3. The system shall provide an OTP code to the customer to ensure the completion of the order.

**Priority Level:** High

**Precondition:** Customer must have an active phone no.

**Cross-reference:** N/A

2. Sign Up

# **Functional Requirements**

- 2.1. The customers need to provide some personal information such as- name, email, phone no., etc. in the Sign-Up form for creating an account.
- 2.2. The customers will have to set a strong password of a minimum of 8 characters.
- 2.3. If an account with the same email or contact no. already exists then the customer will be notified.

**Priority Level:** High

**Precondition:** Customer must have a valid email and phone no.

Cross-reference: 3.2, 3.4

3. Login

## **Functional Requirements**

- 3.1. The software shall allow customers to login with their username and password.
- 3.2. The login credentials (username and password) will be verified with database records.
- 3.3. If the login successful, the customer will be notified.
- 3.4. If invalid credentials are given then the customer will be notified by an email.

**Priority Level:** High

**Precondition:** Customer must have a valid account.

**Cross-reference:** 4, 5.1, 6.1, 7, 8, 9.1, 11.1

4. Dashboard

## **Functional Requirements**

- 4.1. The system shall let the customer view his total usage of last 7 days and pending delivery status.
- 4.2. The system shall let the customer view his total assets, total orders and total cost till now to keep the customer updated about his usage.

**Priority Level:** High

**Precondition:** Customer needs to be logged in with a valid account.

**Cross-reference:** 3.1, 3.2, 5.4

### 5. Place an Order

## **Functional Requirements**

- 5.1. Registered customers can order fuel manually by providing some necessary information such as- asset name, fuel type, fuel quantity, time, date and location.
- 5.2. After providing all the necessary information, the customer can choose any of the payment method (online payment, cash on delivery, swipe on delivery) for placing order.
- 5.3. For online payment the customer needs to provide some necessary information for that specific platform (Bkash, Nagad etc.).
- 5.4. After successful payment, the customer will receive a confirmation email and can also download the invoice.

**Priority Level:** High

**Precondition:** The customer needs to be logged in with a valid account and the required payment information (online payment) should be valid.

**Cross-reference:** 3.1, 3.2, 4.2, 8.1, 8.3

6. Add Asset

# **Functional Requirements**

- 6.1. Only registered customers can add new assets by clicking add sign.
- 6.2. The customer needs to provide the asset information such as- asset name, type, location and fuel type.
- 6.3. The adding history will be recorded in the database.

**Priority Level:** Medium

**Precondition:** Customer must be logged in with a valid account.

Cross-reference: 3.1, 3.2

7. View all Assets

# **Functional Requirements**

- 7.1. Registered customer can view all his assets.
- 7.2. The customer can update his asset info if needed.

**Priority Level:** Low

**Precondition:** Customer must be logged in with a valid account.

Cross-reference: 3.1, 3.2

8. Order History

# **Functional Requirements**

- 8.1. Only Registered customers can view order placement time & date, fuel quantity, total cost as well as delivery status of all his orders till now.
- 8.2. The customer can also search a specific order history by filtering the asset, date range or delivery status.
- 8.3. The customer can also download his order history into a pdf or excel file.

**Priority Level:** High

**Precondition:** Customer must be logged in with a valid account.

**Cross-reference:** 3.1, 3.2, 5.1, 5.4

9. Reset Password

#### **Functional Requirements**

- 9.1. Registered customer can reset their password if necessary.
- 9.2. Customers can only use their phone no. or email to reset their password.

9.3. Customer needs to verify the OTP or verification code before resetting the password.

**Priority Level:** Low

**Precondition:** Customer needs to have a valid account.

**Cross-references:** N/A

### 10. Contact us

### **Functional Requirements**

- 10.1. In any difficulty, customers can immediately get help from a fuel consultant through live chat or email.
- 10.2. Unregistered customers can get answers to their questions and easily order fuel through direct call.
- 10.3. Customers can also describe their issues in an email and the experts can provide a solution for them.

Priority Level: High Precondition: None Cross-reference: N/A

## 11. Edit Profile

# **Functional Requirements**

11.1. Registered customers can edit their profile if they want.

11.2. The updated information will be recorded in the database.

Priority Level: Medium

**Precondition:** Customer must be logged in with a valid account.

Cross-reference: 3.1, 3.2

# 11.0 Manpower Requirement for Implementation:

The successful implementation of the Fuel Delivery System necessitates a skilled and collaborative team.

The key roles required for this project are outlined below:

# 11.1 Project Manager:

# **Responsibilities:**

Oversee the entire project lifecycle.

Define project scope, objectives, and deliverables.

Coordinate and communicate with stakeholders.

Ensure project stays on schedule and within budget.

Mitigate risks and resolve issues.

### 11.2 UI/UX Designer:

### **Responsibilities:**

Design intuitive and visually appealing user interfaces.

Conduct user research to inform design decisions.

Create wireframes, prototypes, and mockups.

Collaborate with developers to implement designs.

Ensure a seamless and enjoyable user experience.

### 11.3 Backend Developer:

# **Responsibilities**:

Develop the server-side logic of the Fuel Delivery System.

Implement database structures and integration.

Ensure the system's functionality, performance, and security.

Collaborate with frontend developers for seamless integration.

# 11.4 Frontend Developer:

### **Responsibilities:**

Implement the user interface designs.

Ensure responsive and cross-browser compatibility.

Collaborate with UI/UX designers for design implementation.

Integrate with backend logic for a cohesive user experience.

### 11.5 Quality Assurance Tester:

### **Responsibilities:**

Develop and execute test cases for system functionalities.

Identify and report software defects.

Ensure the system meets specified requirements.

Collaborate with the development team to address issues.

Conduct performance and security testing.

### 11.6 Additional Roles (as needed):

### **Security Specialist:**

Ensure the system's security measures are robust.

Implement security best practices to protect user data.

Technical Writer:

Document system architecture, code, and user manuals.

Ensure clear and comprehensive documentation for future reference.

### **DevOps Engineer:**

Implement continuous integration and deployment processes.

Manage system infrastructure and deployment pipelines.

The collaboration of these roles is crucial for the successful development, implementation, and maintenance of the Fuel Delivery System. The team composition may be adjusted based on the project's specific needs and scale.

# **12.0 Budget:**

The budget for the Tel Lagbe project encompasses various phases, including design, development, and testing. It is crucial to allocate resources effectively to ensure the successful execution of each stage. The estimated budget for each phase is outlined below:

#### **Design Phase:**

The design phase involves creating wireframes, prototypes, and user interfaces.

Estimated budget: \$8,000.

#### **Development Phase:**

During the development phase, the actual coding and implementation of features take place. This includes backend and frontend development. Estimated budget: \$25,000.

### **Testing Phase:**

Testing is a critical phase to identify and rectify any bugs or issues in the system. It includes unit testing, integration testing, and user acceptance testing. Estimated budget: \$5,000.

Total Estimated Budget for Tel Lagbe Project: \$38,000

## 13.0 Constraints of this Document:

This Software Requirements Specification (SRS) document is a dynamic and evolving representation of the Tel Lagbe project. Several constraints are inherent to the nature of this document, and stakeholders should be aware of the following limitations:

### **Subject to Revision:**

This document is subject to change based on evolving project updates, stakeholder feedback, and any modifications deemed necessary during the development life cycle. Stakeholders are encouraged to stay informed about document revisions.

### **Budgetary Impact on Outsourcing:**

Budget constraints may influence the extent to which design and development components are outsourced. The allocated budget will guide decisions regarding the utilization of external resources, and adjustments may be made to align with financial considerations.

## **Temporal Sensitivity:**

The information presented herein reflects the project's status as of the last revision date. The dynamic nature of technology, industry standards, and external factors may necessitate adjustments to project details, schedules, and specifications.

### **Regulatory Compliance:**

Adherence to regulatory policies, as outlined in section 2.5, is integral to the project. Any modifications in relevant regulations may impact the project's execution and necessitate updates to ensure continued compliance.

## **Technology Evolution:**

The document's content is based on the technological landscape up to the last revision. Ongoing advancements in technology may prompt reassessment and potential modification of chosen tools, platforms, or development methodologies.

Understanding these constraints is crucial for project stakeholders, as it allows for flexibility in response to changes, ensures adaptability to evolving circumstances, and fosters a collaborative approach to project management.

## **14.0 Conclusion:**

In conclusion, the Software Requirements Specification (SRS) for the Tel Lagbe project provides a comprehensive and structured framework for the development of an innovative fuel delivery system. The document encapsulates the collective efforts and insights of the project team, encompassing diverse aspects ranging from system functionality to design considerations, constraints, and budgetary estimates. The Tel Lagbe project, with its emphasis on efficient fuel delivery, user-friendly interfaces, and real-time tracking, aims to revolutionize the way customers access and manage their fuel needs. The document serves as a vital guide for all stakeholders involved, including developers, project managers, and endusers, fostering a shared understanding of project objectives and requirements.

While the SRS lays a solid foundation, it is important to recognize that the document is a living entity, subject to refinement and adaptation as the project progresses. Regular reviews, updates, and feedback mechanisms will play a pivotal role in ensuring that the final implementation aligns seamlessly with the initial vision and objectives outlined in this document.

As the Tel Lagbe project embarks on its development journey, collaboration, flexibility, and a commitment to excellence will be the driving forces behind its success. This document, reflective of current insights and future aspirations, paves the way for a robust, user-centric, and technologically advanced fuel delivery system. The shared vision and dedication of the project team and stakeholders will undoubtedly propel Tel Lagbe toward its goal of transforming fuel delivery into a seamless and customercentric experience.